

U.S. Appln. No. 10/090,546
Atty. Docket No. 01-4004D

REMARKS

Claims 1-16 are pending in this application, with claims 1, 5, 9, and 13 being independent. Claim 1, 5, 9 and 13 have been amended. These amendments are supported by the application as filed and no new matter is added hereby. Favorable reconsideration and allowance are respectfully requested.

The Office Action rejected claims 1-16 under 35 U.S.C. § 103 as obvious from U.S. Patent Application Publication No. US 2002/0067821 to Benson in view of U.S. Patent Application Publication No. US 2002/0118813 to Brehm. This rejection is respectfully traversed.

Touch-tone IVR systems, which were introduced over a decade ago, are perhaps the most widespread class of human-computer interfaces. Since their inception, such systems have been adopted enthusiastically, particularly to perform customer-support types of functions, and have permitted their adopters to reduce significantly the amount of manpower required to maintain a call center. When configured properly, IVR systems can allow more customers to be provided with more support and services more quickly than ever before, and can streamline greatly the call center interaction process.

Nonetheless, many calling customers have classically exhibited an antipathy towards IVR systems, viewing them as frustrating and difficult to use. Such problems generally stem not from the fact that interacting with an IVR system is an inherently complex task, but rather from the fact that the systems are often poorly configured, particularly from the point of view of their usability. As a result, it has become extremely desirous to have tools which allow the manner in which an IVR system is used to be tracked and effectively evaluated, so that the systems usage may be assessed with an eye towards improvement.

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Equally as significant as tracking the use, is visually representing that use in a manner such that it is communicated effectively and concisely to a system evaluator. Such visual representation technique should be flexible and robust enough to communicate to the evaluator even the most complex patterns of user behavior in an IVR system.

To achieve these goals, the present invention as recited in claim 1 provides a method of visually representing call events and completion times on a call-type basis for a call to a call processing center. A recording of calls from end to end is obtained, and events of interest that occurred are time stamped. Significantly, call types are determined by categorizing calls into several call types, in accordance with the manner in which the call was handled. Time stamp data for predetermined significant events are segregated to provide timings, and timings are tabulated by call type. Then, bar graphs are prepared and visually displayed to illustrate the timings of the significant events for each of the call types. In this manner, the present invention provides to the evaluator useful information on each of the call types in a concise and readily comprehensible way.

The system of Benson operates very differently from the system of the present invention. To begin with, the methods of Benson do not operate on a recorded call as in the present invention, but instead operate on a call as it is in progress. And in Benson, a call type is never determined by categorizing a call into one of a plurality of call types in accordance with the manner in which the call was handled.

The Office Action cites ¶ 42 of Benson as teaching the call type determining feature. (See, e.g., Office Action at 3). That paragraph of Benson reads in part as follows:

In step 102A the network information is used to search the customer database and the search results are passed back in step 102B. The calls can be categorised: no ANI is where

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the network information is not supplied; no hit is where the search has found no matching entries in the customer database using the ANI number; single hit is where the search has found just one customer who matches the ANI number; and multiple hits is where the search finds more than one hit on the ANI number.

This teaching is merely directed to searching an existing database of customers against the incoming calls automatic number identification (ANI) data in an effort to identify the caller. It has nothing whatsoever to do with the present invention, and in particular nothing whatsoever to do with determining a call type in accordance with a manner in which a call was handled. Indeed, in view of the fact that the Benson processing operates on a call in progress, it would not even been possible to make such a call type determination.

Brehm relates to systems and methods for verifying usage and quality of interconnection services, and is cited by the Office Action as showing bar graphs. The Office Action does not contend that Brehm shows the call type determination feature discussed above, and of course it does not. Brehm, therefore, cannot correct the deficiencies of Benson.

Accordingly, Applicants respectfully submit that claim 1 is not obvious from Benson or Brehm or their combination, and respectfully request the Examiner to remove the corresponding Section 103 rejection.

Independent claims 5, 9 and 13 are directed to apparatuses, systems or computer program products that incorporate the salient features of claim 1 discussed above. In particular, all of those claims recite determining a call type by categorizing the call into one of a plurality of call types in accordance with a manner in which the call was handled. Those claims, therefore, are patentable for the same reasons as claim 1.

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The remaining claims all depend from one of the independent claims discussed above, and each partakes in the novelty and non-obviousness of its respective base claim. In addition, each recites additional patentable features of the present invention, and individual reconsideration of each is respectfully requested.

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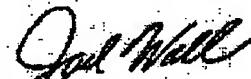
CONCLUSION

This Amendment After Final Action is believed to clearly place this application in condition for allowance. Therefore, its entry is believed proper under 37 C.F.R. § 1.116 and is respectfully requested, as an earnest effort to advance prosecution and reduce the number of issues. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and passage to issue of the present application.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 07-2347. If an extension of time under 37 C.F.R. § 1.136 not accounted for above is required, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,


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